

REMARKS

This Amendment is filed in response to the outstanding Office Action, Paper No. 5, dated May 23, 2003. New Claims 26 through 40 have been added. Support for new Claims 26 through 40 can be found in at least Figs. 1 and 10 of the Specification as filed. The claims now pending in the application are Claims 1 through 40. Reconsideration of the application, as amended, is respectfully requested.

PARAGRAPH 1

The Examiner has asserted that the person signing the submission establishing ownership interest has failed to state his/her capacity to sign for the corporation or other business entity, and he/she has not been established as being authorized to act on behalf of the assignee. A newly executed "Assent by Assignee for Filing of Reissue Application" and a Statement Under 37 CFR 3.73(b) are enclosed.

PARAGRAPH 3

The Examiner has asserted that the reissue oath/declaration with this application is defective because it fails to identify at least one error which is relied upon to support the reissue application. The reissue application declaration submitted without signature upon filing of this reissue application, and subsequently submitted with signatures February 28, 2002, includes a statement of inoperativeness or invalidity of original patent, pursuant to 37 CFR § 1.175. This statement, on page 3 of the reissue declaration, asserts that "I believe the original patent to be partly inoperative or invalid by reason of (37 CFR § 1.175(a)(1)): the patentee claiming more or less than the patentee had a right to claim." However, a description of the error relied upon was not included. Therefore, a supplemental declaration including a description of the error relied upon is submitted herewith.

PARAGRAPH 4

The Examiner rejected Claims 21 through 25 under 35 U.S.C. § 251 for lack of error and as lacking statutory basis. A supplemental declaration including a

description of the error relied upon is submitted herewith. The statutory basis/error relied upon in support of new Claims 21 through 40 is detailed below.

According to MPEP § 1402 "an attorney's failure to appreciate the full scope of the invention was held to be an error correctable through reissue in *In Re Wilder*, 736 F.2d 1516." The attorney of record failed to appreciate the full scope of the invention in that the attorney of record failed to appreciate that the backup source of pressurized hydraulic fluid, which may be a master cylinder, supplied two fluid conduits (or two brake circuits), each supplying a respective one of two brakes on a vehicle axle. None of the claims of the issued patent are directed to this patentable aspect of the invention, as patentee had a right to claim. Thus, reissue Claims 21 through 40 have been added to claim this aspect of Applicants' invention.

PARAGRAPH 5

The original patent, or a statement as to loss or inaccessibility of the original patent, will be submitted prior to allowance.

PARAGRAPH 6

The Examiner rejected Claims 21 through 25 under 35 U.S.C. § 251 as being improper recapture of broadened claimed subject matter surrendered in the application for the patent upon which the present reissue is based.

Rejection Regarding Fluid Separator:

The Examiner asserts that the claims in the patent require a *fluid separator*. The Examiner cites arguments made by the Applicants in Paper No. 10 of the original file wrapper in support of this assertion.

Applicants note that the arguments made in Paper No. 10 of the original file wrapper were directed to Steiner et al., U.S. Patent No. 5,261,730 - not U.S. Patent No. 5,123,713 as indicated by the Examiner in the current Office Action. Applicants argued in Paper No. 10 that Steiner et al. '730 does "not teach or suggest alone or in combination with the references of record, at least the underlined structure recited in

claim 1." Applicants note that the underlined structure recited in claim 1 was indicated as "a fluid separator unit," the fluid separator unit "having a movable pressure boundary which enables, through movement thereof, said normal source of pressurized hydraulic brake fluid to selectively act upon said vehicle brake via a portion of said backup source when said valve is shut."

The test for determining the presence or lack of recapture is now a three step process. See *U.S.P.T.O. Memorandum dated August 4, 2003, entitled "Updated Guidance as to Applying the Recapture Rule to Reissue Applications," citing Pannu v. Storz Instruments, Inc. 258 F.3d 1366*. The first step is to determine whether, and in what aspect(s), the reissue claims are broader than the patent claims. The second step is to determine whether the broader aspect(s) of the reissued claims relate to surrendered subject matter. The third step is to determine whether the reissued claims were materially narrowed in other respects to avoid the recapture rule.

According to MPEP 1412.02, "where a claim in a reissue application is in fact broadened, the Examiner must next determine whether the broader aspects of that reissue claim relate to subject matter that applicant previously surrendered during the prosecution of the original application." MPEP 1412.02 is cited as the baseline for determining recapture, and is consistent with the first step of the three step process for testing for recapture, as cited in the *U.S.P.T.O. Memorandum dated August 4, 2003, entitled "Updated Guidance as to Applying the Recapture Rule to Reissue Applications," and Pannu v. Storz Instruments, Inc. 258 F.3d 1366*. As defined in the statement of error, Claims 21 through 25 are directed to a brake system having a backup source of pressurized hydraulic fluid, which may be a master cylinder, supplying two fluid conduits (or two brake circuits), each supplying a respective one of two brakes on a vehicle axle. Therefore, Claims 21 through 25 are broadening claims, and the aspect in which they are broadening is in an aspect of the invention not previously claimed. Preliminarily, Applicant notes that Claim 22 does recite the limitation of a fluid separator, and thus for this reason alone, the Examiner's rejection of Claim 22 is improper.

Although Claims 21 through 25 are broadened claims, the lack of a fluid

separator in Claims 21 and 23 through 25 is not an aspect of the Reissue Claims which is broader than the Original Claims. According to the MPEP § 1412.03, "a claim will be considered a broadening reissue claim when it is greater in scope than each and every claim of the patent to be reissued." To be a broader aspect in the Reissue Claims over the Original Claims, the aspect must be present in each of the Original Claims. Original Claim 18 is directed to a brake system, as is Original Claim 1, and Original Claim 18 does not include a fluid separator. Because allowed Original Claim 18 does not include a fluid separator, it is impossible that lack of a fluid separator in the Reissue Claims is a broadening aspect. Thus, it is impossible that Applicants' have surrendered all claims not including a fluid separator in the application to obtain the original patent.

Since the lack of a fluid separator is not an aspect of the Reissue Claims that is broadening over each of the Original Claims, it cannot be subject matter that is being "recaptured" in the Reissue Claims. Therefore, the lack of a fluid separator does not pass the first step in the three step test for recapture. Because the first step in the three step test for recapture is not met, a discussion of the second and third steps is not required. Thus, for at least the reasons stated herein, Claims 21 through 25 do not improperly recapture surrendered subject matter by not requiring a fluid separator. Applicants respectfully request that the objection of record be withdrawn.

Rejection Regarding Pedal Simulator:

The Examiner also asserts that the claims in the reissue patent require a pedal simulator. The Examiner cites arguments made by the Applicants' in Paper No. 10 of the original paper in support of this assertion. Applicants' arguments relating to the inclusion of a pedal simulator were directed to Claim 8. Claim 8 depends from Claims 3, 2, and 1. Claim 2 introduces a pedal simulator. Original Claim 1, and also Claim 18, do not include a pedal simulator.

Because allowed Original Claims 1 and 18 (i.e. all of the independent Original Claims) do not include a pedal simulator, the lack of a pedal simulator in the Reissue Claims cannot be an aspect of the Reissue Claims that is broadening over the Original

Claims. Therefore, it is impossible that Applicants' have surrendered all claims not including a pedal simulator in the application to obtain the original patent. Since the lack of a pedal simulator is not a broader aspect of the reissue claims, it cannot be subject matter that Applicants previously surrendered during the prosecution of the original patent. Therefore, the lack of a pedal simulator does not pass the first step in the three step test for recapture. Thus, for at least the reasons stated herein, Claims 21 through 25 do not improperly recapture surrendered subject matter by not requiring a pedal simulator. Applicants respectfully request that the objection of record be withdrawn.

PARAGRAPH 8

The Examiner rejected Claim 21 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the examiner asserts that it is unclear what Applicants intend to claim be claiming first and second backup fluid conduits as no primary conduits have been claimed. Applicants merely intended to convey the fact that each of the fluid conduits connect to the backup source by naming the elements first backup fluid conduit and second backup fluid conduit. Applicants assert that this naming convention is clear from the description of the fluid conduits, and is consistent with similar naming conventions used throughout the Specification; see, e.g., Column 3, lines 3 through 6. Applicants request favorable reconsideration of the rejection of record.

PARAGRAPH 10

The Examiner rejected Claim 21 under 35 U.S.C. § 102(b) as being anticipated by Burgdorf, U.S. Patent No. 4,580,847. The Examiner asserts that "Burgdorf in Figure 2 discloses a brake system adapted for an axle of a vehicle comprising a normal source of pressurized hydraulic brake fluid (37 or 47) and a backup source of brake fluid 54." The Examiner also takes notice of the first and second fluid conduits going to each of the wheel brakes 30, 21, or 32, 33. Applicants respectfully disagree with

this rejection.

Claim 21 recites "a normal source of pressurized hydraulic fluid" and "a backup source of pressurized hydraulic fluid". The Specification at column 23, lines 57 through 65, describes the normal source and the backup source as follows, "as in the previous embodiments of the brake system 2, 200, and 300, upon failure of the normal source of pressurized hydraulic brake fluid 4 to the vehicle brakes 11a and 11b, or upon failure of the control module, the backup source 6 of pressurized hydraulic brake fluid supplied by the master cylinder 12 will be an available source of pressurized hydraulic brake fluid to be applied to the brakes of the brake system 350."

In Fig. 2 of Burgdorf, the normal sources of pressurized hydraulic brake fluid are the reaction cylinders 41, 51 that are connected to the balance beam 55 within the housing 54 and the accumulators 36, 46. The solenoid valves 34, 44 are open so that the brake circuits 28, 29 are open to the respective reservoirs 38, 48 so that no fluid pressure is applied to the respective wheel brakes 30, 31 and 32, 33 until the brake pedal 58 is actuated. When the brake pedal 58 is actuated, the reaction pistons 41, 51 close the switches 43, 53. When the switches 43, 53 close, they energize the solenoid valves 34, 44, so that the solenoid valves 34, 44 are closed. The brake circuits 28, 29 are then closed off from the respective reservoirs 38, 48. Fluid then flows from the reaction cylinders 41, 51 into the respective wheel brake cylinders of the brakes 30, 31 and 32, 33. Next, the switches 42, 52 will close, and the solenoid valves 35, 45 will open so that fluid from the accumulators 36, 46 then flows to the wheel brake cylinders of the brakes 30, 31 and 32, 33, respectively. Therefore, Burgdorf teaches the reaction cylinders 41, 51 as an initial normal source of pressurized fluid and the accumulators 36, 46 as a subsequent normal source of pressurized fluid. Each of the accumulators 36, 46 provides a respective one of the brakes circuits 28, 29 with an independent subsequent normal source of pressurized fluid, which operates during normal braking.

In the event of electrical failure, the solenoid valves 34, 44 are opened (or remain open if no braking was occurring at the time of the failure), and fluid in the in the brakes circuits 28, 29 is drained to the respective reservoirs 38, 48. There is no

source available which could supply pressurized fluid to any of the wheel brake cylinders of the brakes 30, 31 and 32, 33 under this condition.

In summary, Fig. 2 of Burgdorf teaches an auxiliary, energy-operable hydraulic brake system with an initial normal fluid source, and a subsequent normal boosted fluid source for each of the two brake circuits 28, 29. Neither of the two subsequent normal boosted fluid sources, the accumulators 36, 46, act as a backup fluid source, i.e., one that can supply pressurized fluid to the brakes of the vehicle upon failure of the normal source or electrical failure of the brake system. Thus, Burgdorf does not teach a backup source of pressurized hydraulic fluid as described and claimed in the instant application, i.e., one that is available upon failure of the normal source of pressurized hydraulic brake fluid or upon failure of the control module. For at least the reasons described herein, the present invention is not anticipated by Fig. 2 of Burgdorf as has been asserted by the Examiner. Applicants respectfully request reconsideration of the rejection of record.

Applicant notes that in the brake system illustrated in Fig. 3 of Burgdorf, the normal source of pressurized fluid, the cylinders 66, 68 of the tandem master cylinder 65, is available to supply the front wheel brakes during electrical failure of the brake system. However, the master cylinder 65 is the normal source and there is no separate backup source disclosed or taught by Burgdorf. The normal source is merely available to supply the front wheel brakes during electrical failure, which is known in the art.

PARAGRAPH 11

The Examiner rejected Claims 21, and 23 through 25 under 35 U.S.C. § 102(b) as being anticipated by Shirai, U.S. Patent No. 4,812,777. The Examiner asserts that Shirai discloses an independent source for generating braking pressure at 12 and 112, and first and second brake circuits leading to the wheel brakes and the valves at 44 and 46 which may be selector switch operated at 58 and are also subject to control by control device 120 dependent upon a signal from pedal switch 130. Applicants respectfully disagree.

Claim 21 recites in pertinent part, "an axle of a vehicle; a first wheel brake

mounted on said axle; a second wheel brake mounted on said axle;... a first backup fluid conduit extending between said master cylinder and said first wheel brake to selectively provide fluid communication between said backup source and said first wheel brake; and a second backup fluid conduit extending between said master cylinder and said second wheel brake to selectively provide fluid communication between said backup source and said second wheel brake" (emphasis added).

Shirai teaches a primary circuit which includes fluid passages 16, 18. Shirai teaches a secondary circuit which includes fluid passages 20, 22. The primary circuit fluid passages 16, 18 form a single fluid conduit connecting both rear wheel brake cylinders 24 of the rear axle to the master cylinder 10. The secondary circuit fluid passages 20, 22 form a single fluid circuit connecting both front wheel brake cylinders 26 of the front axle to the master cylinder 10. Therefore, Shirai does not teach "an axle of a vehicle; a first wheel brake mounted on said axle; a second wheel brake mounted on said axle;... a first backup fluid conduit extending between said master cylinder and said first wheel brake to selectively provide fluid communication between said backup source and said first wheel brake; and a second backup fluid conduit extending between said master cylinder and said second wheel brake to selectively provide fluid communication between said backup source and said second wheel brake," where the first and second wheel brakes are mounted on the same axle, as recited in Claim 21.

Claims 23, 24, and 25 similarly recite a master cylinder supplying two brake circuits. In general, each of these claims recite brake circuits that are in fluid communication with a respective one of the wheel brakes of the wheels of a front vehicle axle.

As discussed above with respect to Claim 21, Shirai does not teach a master cylinder supplying two brake circuits, where each brake circuit is in fluid communication with a respective one of the wheel brakes of the wheels of a front vehicle axle. Therefore, Claims 23, 24, and 25 are patentable over Shirai for at least the same reasons as discussed above with respect to Claim 21. Applicants respectfully request reconsideration of the rejection of record.

PARAGRAPH 12

The Examiner rejected Claims 21 through 25 under 35 U.S.C. § 102(b) as being clearly anticipated by Steiner, U.S. Patent No. 5,123,713. The Examiner asserts that "Steiner meets the claimed requirements as broadly claimed," and notes the operation of the valves 48, 49 and the fluid separator devices 24 and/or 26. Applicants respectfully disagree.

Steiner teaches a master cylinder 18 as a source of pressurized hydraulic brake fluid, and an auxiliary pressure source 43. When the brake pedal 16 is depressed, the master cylinder 18 supplies fluid to the brakes 12 and 13. While the master cylinder 18 is supplying fluid to the brakes 12, 13, if the ABS system 11 recognizes a locking condition in either of the brakes 12, 13 that requires control, the valve 48 is switched into its blocking position and the pressure modulator 24 is blocked from the master cylinder 18. The inlet control valve 39 is switched into its blocking position and the outlet control valve is switched into its through-flow position. The control pressure chamber 37 of the pressure modulator 24 is then pressure-relieved with respect to the reservoir 47. If the locking condition subsides, the valve 39 is switched back into its through-flow position, and fluid from the auxiliary pressure source 43 can be supplied to either of the brakes 12, 13. The auxiliary pressure source 43 can only supply pressurized fluid after the master cylinder 18 has supplied pressurized fluid to the brakes 12, 13 and the ABS system 11 has been activated. Therefore, the master cylinder 18 is the normal source of pressurized hydraulic fluid. Steiner also teaches that the master cylinder 18 (the normal source) is the only source of pressurized fluid in the event of electrical failure in the brake system. There is no other (backup) source of pressurized fluid to the brakes in such an event.

Claims 21, and 23 through 25 recite a normal source of pressurized hydraulic fluid, and a backup source of pressurized hydraulic fluid or master cylinder for carrying out a backup brake operation. Claim 22 recites a normal hydraulic energy source and a master cylinder for carrying out a backup brake operation. The Specification at column 23, lines 57 through 65, describes the operation of the normal

source and the backup source as follows, "as in the previous embodiments of the brake system 2, 200 and 300, upon failure of the normal source of pressurized hydraulic brake fluid 4 to the vehicle brakes 11a and 11b, or upon failure of the control module, the backup source 6 of pressurized hydraulic brake fluid supplied by the master cylinder 12 will be an available source of pressurized hydraulic brake fluid to be applied to the brakes of the brake system 350."

Steiner teaches that the master cylinder 18 as the normal source of pressurized fluid. Steiner also teaches the master cylinder 18 is the only source of pressurized fluid in the event of electrical failure in the brake system. The auxiliary pressure source 43 is not a backup source of pressurized hydraulic fluid, as defined in Applicant's Specification and described above, since, for example, it cannot supply pressurized fluid to the brakes in the event of an electrical failure, because it cannot position the electrical solenoid valves to do so. Steiner does not teach a backup source of pressurized fluid that is applied to the brakes 12, 13 separate from the normal source of pressurized fluid, thus, Steiner cannot not teach both a normal and a backup source of pressurized fluid as recited in Claims 21 through 25. Applicants respectfully request reconsideration of the rejection of record.

It is believed that Claims 1 through 40 are in condition for allowance. Accordingly, an early Notice thereof is respectfully requested.